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Pension World

The Magazine for Plan Sponsors and Investment Managers/ A Publication of Communication Channels, Inc.

How Do Tax Proposals Affect 401(k) Loans?

PBGC Fights Back!

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Pension World

January 1986
Volume 22 Number 1

The Magazine for Plan Sponsors and Investment Managers/A Publication of Communication Channels, Inc.

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Cover: **The Capitol provides a backdrop this month as legislative issues are highlighted. National Geographic Society Photographer; courtesy of the U.S. Capitol Historical Society. Mark Weinstein's story on the fate of 401(k) loans begins on page 25.**

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Stalking the elusive "real return" on investments

Insurance companies offer retirement funds a vast array of products. But whatever the product, from "universal life insurance" to defined benefit retirement plans to annuities, the basic functions of the institutions are the same: (1) to accept funds in trust for participants, (2) to maintain or increase the purchasing power of those funds with minimum risk and (3) to return the enhanced purchasing power to participants when they need it. For pension plans covered by ERISA (the Employee Retirement Income Security Act), the obligation to participants is more than a moral one. ERISA requires that such plans be invested and managed for the "exclusive benefit" of participants and beneficiaries.

It is not enough that institutional investors earn high nominal yields. Pensioners need purchasing power, not nominal dollars. The goal of institutional investment managers, therefore, should be to earn the maximum real return on invested funds which can be obtained consistent with participant risk preferences. Yet there is ample evidence that participant interests are being seriously suboptimized. In fact, it is a rare pension fund or insurance company investment manager who even conceptualizes the job in terms of purchasing power or real returns. This article will describe the worsening record of institutional investing over the last 25 years, discuss current prospects, and propose a solution.

The record

Until the 1970s, institutions were able to earn stable and positive real returns on invested assets. Figure 1 shows the investment performance of U.S. life insurance companies from 1960 through 1972. Real returns were generally positive and stable, averaging 1.87 percent. The standard asset in institutional portfolios was a low-default-risk debt security insured or guaranteed by a government agency or secured by a first mortgage on a capital asset. There were exceptions, of course. Some institutions, thinking that inflation might someday get out of hand, developed portfolios of equity securities under the belief that equities provided an inflation hedge. Early issues of Nobel laureate Paul Samuelson's famous economics text endorsed this idea. Later editions eliminated it. Samuelson now calls the belief that equity investments offer protection against unexpected changes in inflation one of the "myths" of institutional investment. No popular investment security, whether debt or equity, is immune from the effects of inflation.

Inflation peaked at 12.2 percent in 1974, then fell back for a time, again reaching double digit levels in 1979 and 1980. Figure 2 shows how insurance companies fared from 1973 through 1984. In contrast to the earlier period, these years saw highly volatile real yields, averaging just below zero. While the data in Figures 1 and 2 apply specifically to life insurance companies, pension funds saw an almost identical pattern, with small funds earning slightly less and large funds slightly more than the industry.

Of course, market interest rates and required rates of returns on equity investment rose markedly to offset the effects of expected inflation and to compensate providers of funds for accepting the risk that inflation would be higher than expected. Market interest rates on mortgages, first mortgage bonds, and mortgage-backed securities reached levels of 14 to 16 percent and the prime rate exceeded 20 percent at one point in 1981.

Acutely aware of the need to earn positive real returns and under increasing criticism for not doing so, institutional investment managers remembered Samuelson's old "wisdom" of the 1950s and early sixties, when most of them had gone to college. But they forgot—or failed to learn—his new wisdom. Many institutions began to shift aggressively toward equity positions, especially in real estate. Such a shift was understandable because with inflation high and volatile, inflation risk on dollar-denominated securities was orders of magnitude greater than the business risk which earlier had distinguished debt from equity. For example, a typical fixed-rate mortgage portfolio of 1977 lost more than 30 percent of its market value by the end of 1980. Even a 100 percent default rate would not produce losses this high (defaults, on average, cost less than 15 percent of loan balance).

For some institutions, the shift toward ownership of equity real estate was unintentional. Many lenders had accepted low debt coverages and high loan-to-value ratios, expecting continuing inflation to in-

by **ARTHUR SHARPLIN**
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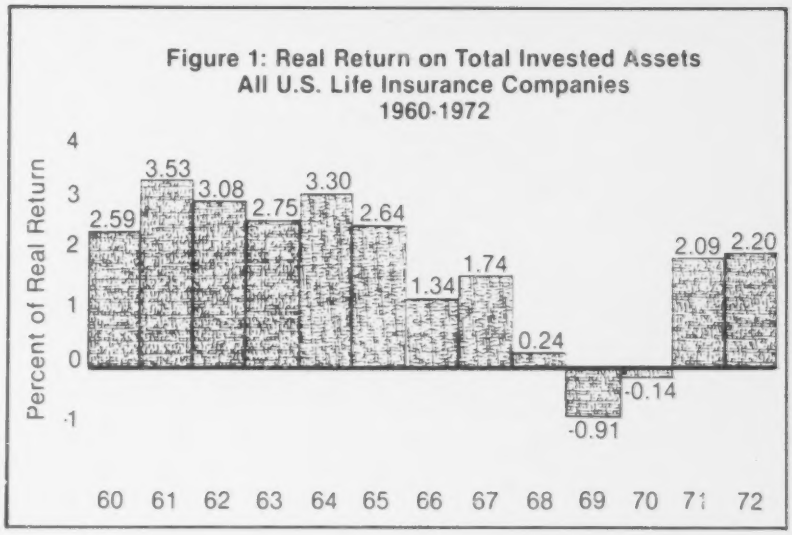
flate property values and income streams. Also, many variable-rate mortgages had been made with the early-period interest rates bought down. When the buy-down periods ended, some of these became distressed properties because the expected inflation did not occur and property incomes were suddenly less than debt service requirements. For these and other reasons, many institutions inadvertently became holders of large amounts of owned real estate. Some aggressively set about to purchase properties outright as an inflation hedge. Still others offered interest rate concessions in exchange for a share of property income.

By 1985, even conservative pension funds had substantial owned real estate (and often other physical assets as well). For example, the California State Employees Fund owned more than $1 billion in real estate equity. Even though the ownership of physical assets was unintentional for many institutions, practically all had to buy or develop management capability. Because economies of scale are important for commercial property management, there were incentives for institutions to increase their real estate holdings. David Glickman of Heitman Financial Services estimates that internal management of properties is impractical for institutions holding less than $100 million in real estate equity.

A pattern developed which would have been anathema to the conservative institutional investment manager of the 1960s. Many institutional investors moved beyond 100 percent equity positions and began to purchase real estate equity which was leveraged with debt held by other institutions.

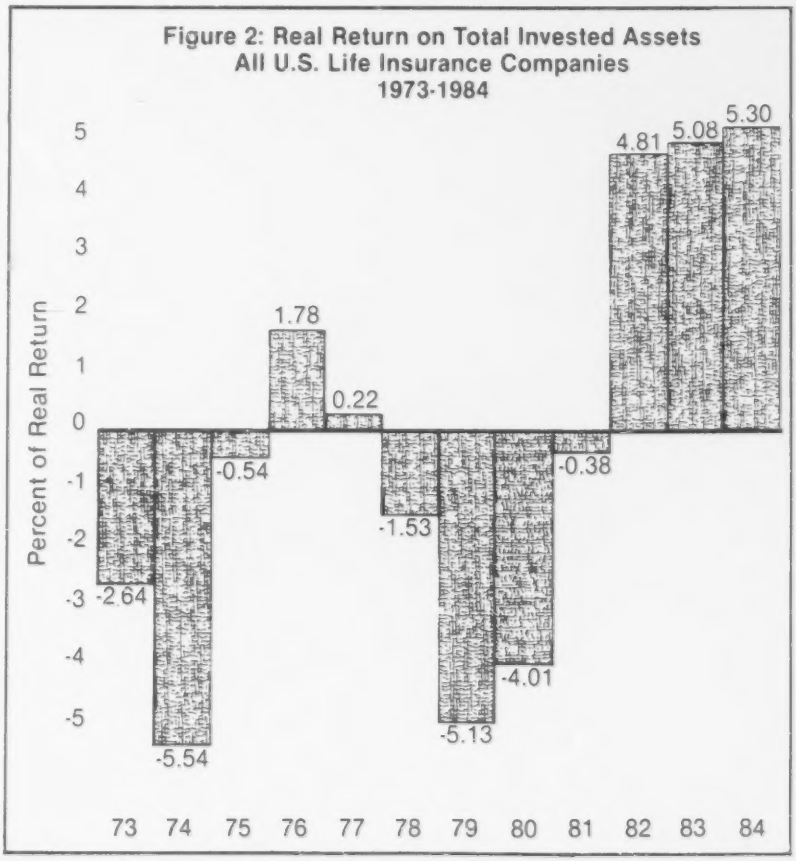
So, in increments, institutional investment managers moved from government guaranteed loans and mortgages for 70 to 80 percent of value on real estate and other assets to loans with loan-to-value and debt-coverage ratios near 1.0; then to participating loans (which effectively made the institution part owner of the already-small equity); then to 100 percent ownership of real estate; and, finally, to the ownership of leveraged equity positions in real estate. Looking back over the record of the 1970s, some investment managers discovered that they would have done better by investing in U.S. Treasury bills, thereby earning positive real returns while diminishing inflation risk and practically eliminating default risk. So, some shifted funds to short-term government securities just in time for the collapse of T-bill rates in 1985.



In summary, although participants continue to entrust their resources to institutions, those institutions in general have neither significantly increased the purchasing power of those resources nor honored participants' obvious preferences for minimum risk.

There are many in the investment community who believe that *this time* they have outsmarted inflation. That is optimistic.

At a recent New York symposium for the Coffee, Sugar, and Cocoa Exchange, Columbia University's Philip Cagan proved beyond any reasonable doubt that no one has ever been able to predict in-



flation. In fact, Dr. Cagan showed that using the previous year's inflation rate as a predictor of the current year's rate provided the highest forecasting accuracy—better than a panel of professional forecasters, better than a panel of economists, and, of course, better than a group of ordinary citizens.

Some believe that no matter what inflation turns out to be, their participating mortgages or variable rate mortgages or leveraged or unleveraged equity positions in real estate will beat it. There is not a shred of evidence to suggest that this is true. With particular regard to participating loans (which provide, for example, that one-half of any nominal rent increases will go to the lender), this sharing of the benefits of good property management will certainly ensure suboptimal management. For example, a developer who has two properties, one with a nonparticipating loan and the other with a participating loan, will surely focus attention and resources on the property with the nonparticipating loan. In addition, the lender has already given up a percentage of fixed yield in exchange for the rent sharing. If the contemplated inflation does not occur or, God forbid, if zero or negative price level changes occur, rents may in fact decline, causing operating income to fall below that required to service the debt. If high inflation occurs, surely rents will lag that inflation on average by two or three percent a year. This will occur because as property depreciates, it produces a declining real income stream. In all likelihood, rents on properties financed with participating loans will lag inflation more than average because of suboptimal management. So, for every point of inflation which occurs, the real value of the lender's principal balance will be reduced by one percent. Nominal rents might increase by one-half or two-thirds of a percentage point, but the lender will get only half of that, far too little to offset the decline in the value of the lender's principal balance.

In addition, if inflation expectations return to their levels of 1980, market interest rates will very quickly move up several percentage points, greatly devaluing all long-term, fixed-rate loans. For variable-rate loans, unexpected inflation will not be incorporated into interest rates until it has already devalued principal balances.

A "real" solution

As dismal as the situation may seem, there is a readily available solution, one which has already been applied on a small scale in Utah, Georgia and Louisiana. That solution is price-level-adjusted debt securities. As previously shown, inflation risk is orders of magnitude greater than the maximum default risk any lender will knowingly accept. But unlike default risk, inflation risk *is* avoidable. Using any of several simple price-level-adjusted loan designs, it is possible to make the lending contract in real (that is, purchasing power) terms and to carry it out in real terms.

"Using any of several simple price-level-adjusted loan designs, it is possible to make the lending contract in real terms and to carry it out in real terms."

There are those who will say, "Borrowers will never accept inflation adjustment. They want to know what their payments will be." There are two answers to this point. First, a borrower on a fixed-rate, variable-rate, or participating loan has no idea what the payments will be just a few years in the future or over the life of the loan. Yes, the borrower knows the numbers that will be written on the checks to make those payments, but those numbers only have meaning to the extent that they represent purchasing power. If inflation turns out to be two percent annually, for example, one dollar ten years in the future will purchase what $0.82 will buy today. If inflation turns out to be 15 percent on average, the dollar will buy what a quarter will buy today. So within what might be a typical borrower's 90 percent confidence interval for inflation, the payment may vary by a factor of three.

The second, and more compelling, retort is that borrowers have accepted such loans already and whether they will do so in the future is dependent upon the interest rates which are available. In Utah, the State Teachers Retirement Fund is earning four percent real yield on $50 million in price-level-adjusted residential mortgages. A much smaller volume of price-level-adjusted mortgages were made to home buyers near Atlanta by a New York company more than ten years ago. Finally, in Louisiana a limited number of commercial mortgage loans of $445,000 and under are yielding the lender astounding real yields of eight and nine percent.

Prospective borrowers may ask, "Why would lenders make real-dollar loans at four percent when they can earn, say, 12 percent on regular loans?" One fallacy suggested by such a question is the comparison of nominal interest rates with real interest rates. *Nominal* means "in name only; usually not in fact." *Real* means "not merely so-called; truly possessing the essence of what it is called." A nominal interest rate of 12 percent may turn out to be any positive or negative real rate, depending on the inflation which occurs over the term for which the interest rate is fixed.

Further, since inflation risk is overwhelmingly the major risk in mortgage lending today and price-level-adjusted loans eliminate this risk, institutional lenders should be willing to loan at a lower expected rate on price-level-adjusted loans than on alternative designs. Therefore, a rational institutional investment manager, aware of the past record, should be grateful for an opportunity to earn one or two percent on a price-level-adjusted debt security of average default risk.

There is no necessity to be content, however, with such yields. There is ample evidence that four or five percent real yields are available in every state and city in America. Even a rapid-amortization, price-level-adjusted mortgage (called a Real Dollar Payback or RDP loan) which yields four percent real interest will have debt service payments of less than 60 percent of those on a 12 percent standard mortgage. To be viable in today's real estate market, a commercial project must produce annual net operating income approximating ten percent of proj-

Continued on next page

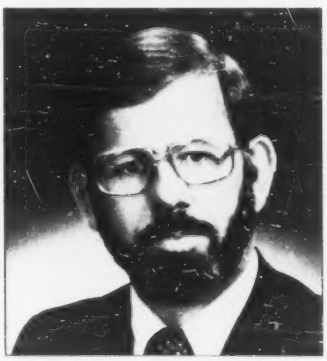
Investment return

Continued from opposite page

ect value. With a four percent RDP loan, such a project would provide about half of its net operating income as cash flow to the equity holders. It would also give the typical institutional lender at least twice the real yield that lender has been able to earn in the past, and with a level of risk (inflation risk plus default risk) which is miniscule in comparison to the risk of a fixed-rate, variable-rate, or participating loan.

Conclusion

Inflation risk is a creature of mortgage design. It can be essentially eliminated through the use of RDP mortgages. A portfolio of such mortgages will provide the institutional investor a guaranteed real yield much higher than the average of the highly volatile yields earned in the past. Pension funds and insurance companies have the capability of originating RDP mortgages themselves. In general, there is no necessity for the passage of new laws or even government agency approval. Forms design only requires the modification of existing documents. The only reason an institutional investment manager should hesitate is the belief that the next turn of the inflation wheel is predictable. Given a decades-long record of failure, only the compulsive gambler believes that it is. □



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Master trust

Continued from page 32

of ancillary services such as: benefit disbursement, performance measurement, analytics, security lending and specialized cash management vehicles.

• The sponsors who drive the master trust product have growing technological appetites. As these appetites build, the number of banks capable of feeding such huge appetites decreases.

Pressures on profit will require master trustees to consolidate in order to survive and to respond to the ever-increasing needs of the marketplace. Consolidation will present new opportunities for growth for the anticipated eight to ten surviving banks. Capitalizing on such opportunities will depend heavily on the banks ability to meet the demands of clients.

The surviving master trustees may take on a new client — other banks. A concept of "private label" master trust services will be offered to regional banks unable to release master trust clients with major banking relationships, interlocking boards, or other special relationships. This new service will remove the back-office operation from those banks unable to commit the dollars necessary to remain state-of-the-art. It will create even greater efficiencies because the entire securities settlement process, trust department general ledger and government reporting requirements can be obtained through such an operation.

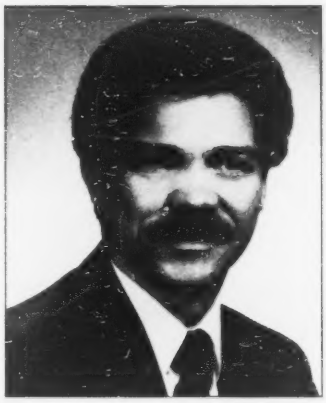
In many instances, it will be transparent to trust department customers that a major master trustee bank is providing the entire system. Clients can still deal directly with their own trusted employee benefit administrator. However, this administrator will deal directly with the master trustee as he does now with his own operations area.

In addition to regional banks seeking the services of master trustee banks, the investment subsidiaries of trust departments mark an even greater opportunity. These ventures are very bottom-line oriented and must maintain innovative approaches. The cost-effectiveness of master trust, uniformity of administration and a superior reporting process are the added pluses to be obtained.

Along with the consolidation of master trustees, we also see a shift to defined contribution occurring among plan sponsors. In addition, we believe the master trust product will expand to the government marketplace and foundation/institutional relationships.

The end result of these forces will be an even greater emphasis by master trustees on personalized service. Master trust will remain a high tech market-driven product; data downloading and reports created instantaneously by plan sponsors will be the norm. Systems will be upgraded to permit daily performance calculations and comparisons to universes. On the defined contribution recordkeeping side of the business, participant statements will be generated monthly rather than semi-annually or annually. Online benefit disbursement systems will be available for customer inquiry and/or actual updating.

All of these advances will require dollar commitments in the millions by each master trustee who chooses to remain a vital part of the future. Opportunity awaits those master trustees that have made the commitment. □



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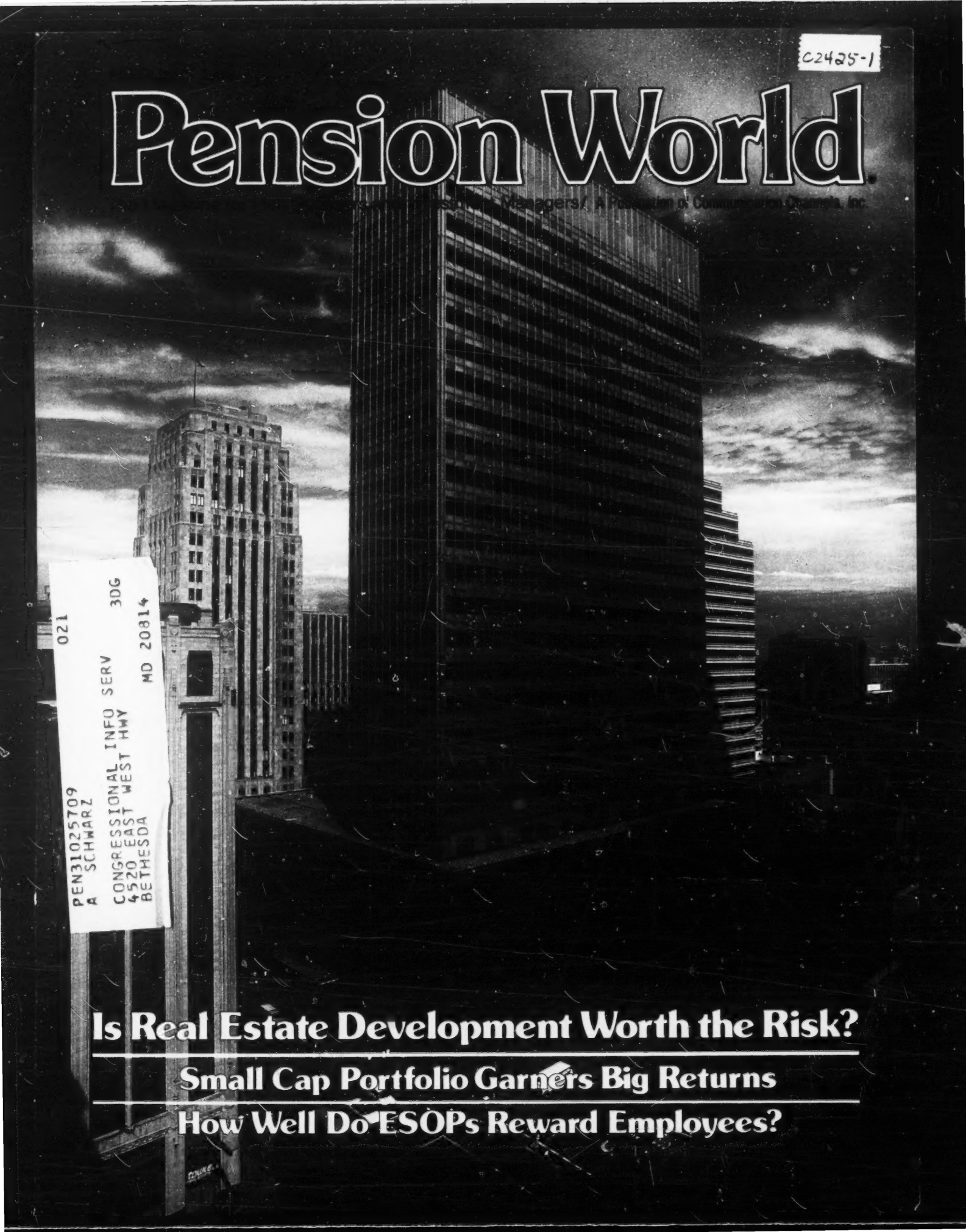

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Is Real Estate Development Worth the Risk?

Small Cap Portfolio Garners Big Returns

How Well Do ESOPs Reward Employees?

Pension World

February 1986
Volume 22 Number 2

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Cover: **First Bank Place West, Minneapolis, is a 404,000-square-foot office building owned by the HAC Group Trust and two separate account pension fund investors. Photo courtesy Heitman Advisory Corporation, Chicago.**

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Small cap portfolio garners big returns

The investment of pension fund assets has become increasingly complex over the past five years. During this time, pension assets have more than doubled to approximately $1 trillion, giving rise to a growing dominance of institutional investors in the equity and debt markets. A large infusion of capital into the financial markets by a relatively small number of institutional investors has created a higher degree of volatility than existed in 1980.

Disgruntled by mediocre equity returns, many pension funds have been prompted to reassess their equity investment strategies. They have begun to take a broader view of the equity universe, looking beyond conventional large capitalization issues. One area of the equity market that has experienced superior growth over the past several decades and has recently attracted growing attention from plan sponsors is small capitalization stocks.

Large vs. small cap

Market capitalization is a corporation's total number of shares outstanding multiplied by the current price per share. IBM, a large capitalization issue, for example, has a market capitalization of approximately $72 billion. On average, the market cap of stocks represented in the S&P 500 is in excess of $11 billion. By contrast, the vast majority of stocks in the universe of approximately 7000 publicly traded companies have much smaller market capitalizations. Mass Mutual's Small Company Fund, for example, concentrates on companies with market capitalizations of no greater than $150 million. Small cap stocks tend to be underowned by institutions and underfollowed by Wall Street analysts and therefore are less influenced by institutional activity. Consequently, this sector of the market provides an opportunity for greater price inefficiencies and potentially greater financial rewards.

The firm of R. G. Ibbotson & Associates, Chicago, publishes the annual returns of a universe of small capitalization securities. A review of these year-by-year returns indicates:

1. Small capitalization stocks have consistently outperformed large-capitalization issues.

2. The prices of small and large capitalization stocks do not always move synchronously with respect to timing, direction and magnitude.

In three of the past 10 years, for example, small capitalization stocks outperformed large capitalization issues by over 25 percent. And in two of the past 10 years, small cap stocks generated substantial positive returns while large cap issues posted negative results. In 1984, the reverse situation occurred. This type of asynchronous behavior provides investment exposure for a variety of economic outcomes.

Although small capitalization issues offer outstanding investment opportunities, pension fund managers are not turning their backs on large capitalization stocks entirely. Rather, they are diversifying their equity portfolios among both large and small capitalization issues. A recent survey by Mass Mutual of more than 140 defined benefit plans indicated that more than 30 percent of plans use more than one equity manager. And, among these plans, the secondary manager tends to specialize in small cap or aggressive growth stocks. Plan sponsors are beginning to diversify among different types of equity managers because studies reveal that investment exposure to different market segments can work to enhance a portfolio's investment returns without adding a commensurately higher degree of risk. Over the past 10 years, an equity portfolio 50 percent invested in small capitalization stocks and 50 percent invested in the S&P 500, for example, would have generated a 53 percent greater return than the S&P 500 alone with only a marginal increase in risk as measured by the standard deviation of returns.

In 1979, in response to plan sponsors' needs for more stable and predictable equity returns, Mass Mutual began studying small capitalization stocks. We recognized this area of the market as a viable source for portfolio diversification. We concluded that although the term "small cap" is frequently associated with high tech or emerging growth companies, these companies comprise only a segment of the small cap universe. Like the large cap universe, the small capitalization sector of the equity market includes a variety of different types of companies in a variety of different industries, many of which are financially sound, well managed and profitable.

Two years later, Mass Mutual began to test its small cap theory by

by **LEO POLVERINI**
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Managers vs. the S & P 500
Annualized Total Rates of Return
(cumulative periods ending 12/31/84)

	10 years	5 years	3 years	2 years	1 year
SEI Median Manager	15.2%	14.8%	14.9%	10.9%	1.8%
S & P 500	14.8	14.7	15.6	14.2	6.3

Small Cap Stocks vs. the S & P 500
Annual Rates of Return

	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84
Small Cap Stocks*	52.8	57.4	25.4	23.5	43.5	39.9	13.9	28.0	39.7	– 6.7
S & P 500	37.3	24.0	– 7.2	6.6	18.6	32.7	– 5.0	21.5	22.6	6.3

GROWTH OF $100

	5 years	10 years	25 years	50 years
Small Cap Stocks*	$266	$1,419	$3,342	$134,617
S & P 500	200	380	756	17,883

(all periods through 12/31/84)

Comparison of Portfolios
Risk and Return
10 years (1975-1984)

	S & P 500	Small Cap Stocks*	50% S & P 500/ 50% Small Cap Stocks*
% Return	14.8	30.4	22.6
% Risk	15.1	16.3	15.8

*Source: Stocks, Bonds, Bills and Inflation: 1984 Yearbook, Chicago: R. G. Ibbotson Associates, Inc.; 1984

Four-Year Performance Results
Small Cap Portfolio

	1981	1982	1983	1984
Mass Mutual Small Cap Portfolio	20.6%	47.2%	45.2%	14.2%
SEI % Ranking	1	1	1	4
S & P 500	– 5.0	21.6	22.6	6.3

constructing and managing a portfolio of small cap stocks in its general investment account using the same risk-averse strategy successfully applied in its "core" equity account for the past 11 years. We sought to outperform the S&P 500 and to rank in the top quartile of equity managers in the SEI universe. Since 1981, we have exceeded all of these objectives without a significant increase in risk or variability. We ranked in the first percentile in the SEI universe in 1981, 1982 and 1983 and in the fourth percentile in 1984. Since its inception, the standard deviation of our small cap portfolio has been only slightly greater than that of the S&P and significantly less than the variability normally associated with small cap portfolios.

As a result of this portfolio, we feel that while high tech and emerging growth issues are appropriate for some pension portfolios, many plans prefer a lower risk investment strategy. Many pension plan sponsors are therefore leaning toward investment managers that apply a value-oriented, risk-averse approach to small cap investing.

Value-oriented managers use fundamental research techniques to identify high quality, smaller capitalization issues. They strive to isolate companies with a unique product, market position or operating characteristic that sets them apart from their competitors and allows for above-average rates of return. They set high standards for judging a company's potential for profitability, dividend growth, and price appreciation, as well as quality of management. In addition, they seek to purchase these companies when they appear historically undervalued.

Before selecting the most appro-

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How well do ESOPs reward employees?

Most of the literature on employee stock ownership plans focuses on the effects on corporations. But how do employees fare?

In just a few years, employee stock ownership plans (ESOPs) have gone from obscurity to celebrity, from small firms on Main Street to giant conglomerates on Wall Street. They have been hailed by groups as diverse as the Democratic Party, the Steelworkers, the Chamber of Commerce, and the Catholic Church, and criticized by such unlikely allies as *Business Week* and the International Association of Machinists. In the popular perception, ESOPs are usually viewed as a means to save failing firms or restructure large public companies to make them less vulnerable to takeovers. In fact, these uses account for only about two percent of the 7,000 ESOPs covering 10,000,000 workers. ESOPs are much more commonly used in mid-sized, profitable companies as an additional employee benefit, a means to buy out a retiring owner, or a way to borrow money more inexpensively.

Almost all of the literature on employee ownership focuses on how it can be used to accomplish various corporate financial objectives. The remainder looks at such things as employee ownership and corporate performance or the relationship between employee ownership and employee control. Curiously, however, one would search in vain to find out just what the financial impact of ownership is on employees, the people ESOPs are supposed to benefit. ESOPs were designed primarily as a means to broaden the ownership of wealth. All of the various tax incentives ESOPs receive were created to encourage companies to share ownership with employees. So the principal evaluation of how well ESOPs are working should not focus on corporate profitability, on how well ESOPs fit into corporate financial planning, or whether ESOPs create more democratic corporations. All of these are ancillary issues. The key question about ESOPs is, as Congressman J.J. Pickle, D-Tex., pointed out recently, "how much they put in the pockets of employees."

To address this question, the National Center for Employee Ownership, a nonprofit research and membership organization, studied the actual experience of employees in over 140 representative ESOP companies. Our results, in brief, indicate that employees do quite well. An employee earning the 1983 median wage of $18,000/year would accumulate $31,000 in stock after ten years and $124,000 over 20. While these figures compare favorably to other kinds of employee benefit plans, there is no evidence that employees actually give up pension plans or wages to get their ESOPs.

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How ESOPs work

ESOPs are a kind of qualified employee benefit plan. In an ESOP, a company sets up a trust and makes tax-deductible contributions to it, either of its own stock or cash to buy stock. Alternatively, the ESOP can itself borrow funds to buy company stock. The company would pledge to the lender that it would make contributions to the ESOP equal to the loan repayment schedule.

Stock is held in the trust and allocated to employees, following the same nondiscrimination rules that apply to other employee benefit plans. The allocations are subject to vesting, which usually starts after

Average Employee Stock Accumulation in ESOPs

Salary level	Number of years worked 10	20	30
$11,792	$20,370	$ 81,033	$281,682
18,058	31,195	124,092	400,733
27,277	47,121	187,443	605,316

Number of employees in sample: 108
Mean annual contribution as percent of pay: 10.07%
Percent annual change in stock value: 11.53%

two or three years and gradually increases to 100 percent after ten. Employees pay no tax on the stock while it is in their accounts, and only limited tax when they receive the stock at separation or retirement (usually whichever comes first). Employees in publicly held ESOPs must be able to vote on all issues; in privately-held companies, they are only required to be able to vote on issues which require more than a majority vote.

ESOPs have a number of uses. Retiring owners can have the company make tax-deductible cash contributions to buy out their shares, and can then avoid capital gains taxes on the sale by reinvesting the proceeds in the stock of other companies (but only if the ESOP owns at least 30 percent of the shares). Companies borrowing through an ESOP can deduct the contributions they make to repay the loan, meaning, in effect, that they are deducting interest and principal on the loan. Moreover, banks can deduct 50 percent of the interest income they receive on ESOP loans, which has lowered interest rates by 15 to 20 percent. Companies can also simply print new shares and issue them to the ESOP, deducting their value (within certain limits). Less typical uses include using an ESOP in lieu of wages, to buy a failing firm, and to buy or divest subsidiaries.

What an employee gets

To find out how much the average employee gets upon leaving an ESOP, we collected data from nine consulting firms across the country. The consulting firms are among the largest specializing in ESOPs, thus providing a large population base from which to draw the sample firms. We followed this approach because there are no reliable lists of ESOP firms from which to draw a sample and because firms are reluctant to divulge financial data to researchers (a phone survey revealed a very low and possibly skewed response rate to our questions). Consultants, on the other hand, could provide data for individual firms without identifying the companies. They were instructed to draw a random sample of their clients, which we have no reason to believe would differ from ESOP firms generally, since most of these firms would use a consulting firm with expertise in ESOPs to set up or administer their plan.

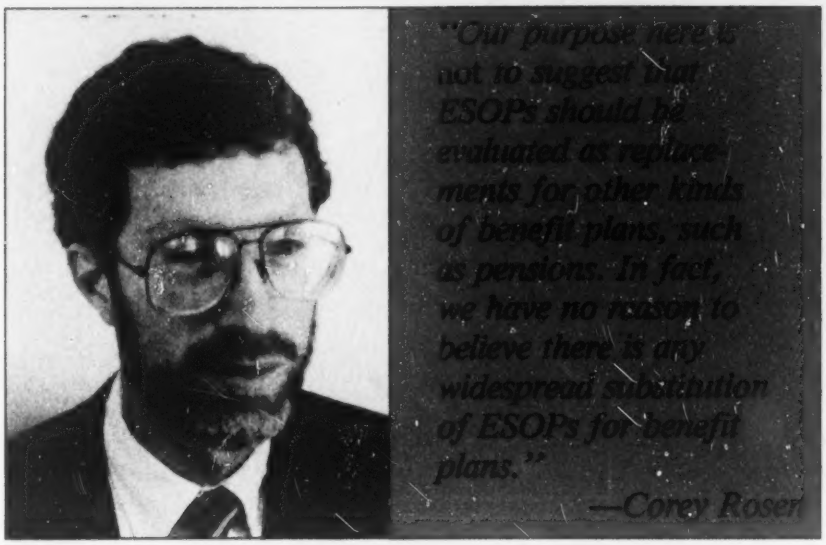
For a random sample of their clients, we asked the consultants to provide information on (1) the average annual stock price change from 1980 to 1984 and (2) the average percent of covered payroll contributed annually to the ESOP during the same time span. With these two pieces of information, we could calculate how much a hypothetical employee would accumulate in an ESOP, assuming that these same levels of contributions and stock price changes continued for the period of time (ten years, twenty years, etc.) being studied.

We used this procedure to determine how much employees at various salary levels would accumulate in an average ESOP account over ten, twenty and thirty years. This procedure assumes employees receive no additional contributions through forfeitures (stock redistributed in the plan from employees who leave before they are fully vested), and that an employee stays with the plan long enough to become 100 percent vested (usually ten years, but sometimes less). Employees who leave earlier receive only the vested portion of their accumulated benefits.

The nine consulting firms each provided data for as few as six and as many as 16 companies. In all, they provided us with contribution data for 102 firms and stock price data for 108. In evaluating the numbers provided by the ESOP consultants, we used two different control groups. First, we used data provided by companies in a National Center for Employee Ownership (NCEO) study of 37 ESOPs with characteristics similar to ESOPs in the general population. (This study focused on employee attitudes towards ownership and is reported in the book *Employee Ownership in America: The Equity Solution* from Lexington Books.) A second control group came from a random phone survey from which we were able to obtain data on eight companies. Both groups produced projected dollar accumulations in the ESOPs within 10 percent of the totals generated by the consultant groups. It appears, therefore, that the consultant sample is representative.

What did the client company data tell us about how much employees get from their ESOPs? The accompanying table shows the average contribution levels and stock price changes for the sample firms. After weighting the data provided by each consultant according to the number of companies in their sample, we found that the average company contributed about 10.1 percent of payroll to its ESOP from 1980 to 1984. The average stock price change during this period (weighted by the number of companies providing data) was about 11.5 percent.

Using these mean and median values for contribution and stock value change, we calculated account values. We found that workers at the 1983 median wage level of $18,058 would receive over $31,000 worth of stock after ten years and more than $120,000 after twenty years from their ESOP plan. The salary level for the 25th percentile of the working population was estimated to be $11,792 in 1983. Workers at this income level would receive about $20,000 from their ESOPs after ten years and about $80,000 after 20 years. Workers at the 75th percentile income level, earning $27,277 in 1983, would get about $45,000 after ten years and about $185,000 after 20 years. These projections are based on the *mean* values from the consulting companies. Using the *median* val-


"Our purpose here is not to suggest that ESOPs should be evaluated as replacements for other kinds of benefit plans, such as pensions. In fact, we have no reason to believe there is any widespread substitution of ESOPs for benefit plans."
—Corey Rosen

ues for contribution and stock price change, we found that a worker at the median income level would get about $21,000 after ten years and more than $65,000 after 20 years from an ESOP.

These projections of employee wealth, of course, would be affected by inflation and changes in real wage levels. An increase in real wages would push the values up; a decrease would force them down. Stock price changes were for the 1980-1984 period, a time of relatively low inflation. Nonetheless, the real value of the stock price increases is less than the nominal values given here.

What about other plans?

One way to put these numbers in context is to compare the performance of ESOPs with other ERISA-governed defined benefit and defined contribution plans, as well as with equity investments generally. Our purpose here is *not* to suggest that ESOPs should be evaluated as replacements for other kinds of benefit plans, such as pensions. In fact, we have no reason to believe there is any widespread substitution of ESOPs for benefit plans. Nonetheless, the findings reported here are, we think, easier to interpret if put in the context of other benefit plans and capital accumulation generally in American households.

Over the period 1980 to 1984, for instance, the Dow Jones Average grew at 6.73 percent per year (based on the closing average for each year), while the average stock price change for our ESOP samples was 11.5 percent. Pension fund managers using a mixed equity and bond investment approach, by contrast, achieved a rate of return of 12.8 percent, just above the ESOP average, according to the Employee Benefit Research Institute. The average percent of pay contributed to all types of ERISA-governed plans was six percent between 1980 and 1983, according to a Chamber of Commerce study. The average contribution to profit sharing plans among members of the Profit Sharing Council, a lobbying group, was 9.0 percent from 1981 through 1983. This figure is probably higher than the figure for all profit sharing plans, however, because it includes primarily members of a lobbying organization (those firms more interested in profit sharing, in all likelihood).

Overall, these data indicate that ESOPs compare favorably with other employee benefit plans. We could, for instance, use the model employed earlier and take the average contribution level and the average rate of return for all benefit plans. With a six percent contribution level and the 12.8 percent rate of return for balanced pension funds, an employee earning the median wage would accumulate $19,765 after ten years. This compares to just over $31,000 for the ESOP. This comparison is only heuristic, of course, since these plans work in different ways. It does give us an idea, however, of how quickly benefits accumulate in ESOPs and other kinds of benefit plans. It should be noted that these comparisons do not take into account different levels of risk in these plans. For the most part, ESOPs are riskier, and therefore should offer a higher rate of return.

In comparing ESOPs to defined benefit plans in particular, it is important to recognize that ESOPs and other defined contribution plans would normally be preferable for younger, more mobile employees, while pension plans would normally be more attractive for older employees or those planning to make a career with a single firm.

It is instructive as well to compare the ESOP figures with other measures of wealth accumulation. The median financial assets of a family headed by someone 45-54 years of age (excluding home equity) amounted only to $4,131 in 1983; the mean figure was $23,000. For families at retirement, the figures were $11,400 and $65,339. Clearly, by comparison, even a relatively short stay in an ESOP provides a larger accumulation of financial assets than most families save from all other sources.

What employees give up

What do employees give up for an ESOP? This is, unfortunately, a difficult question to answer with precision. A 1983 survey of members of the ESOP Association, for instance, revealed that only three percent of the firms required an employee contribution to the plan, and only seven percent terminated a pension plan when they set up their ESOP. In the NCEO's four-year study of 37 ESOP firms, only one company required wage concessions for their ESOP, and all of the other firms appeared to pay competitive wages or better. The 3800 employees we surveyed, on the average, reported their wages were neither notably good nor bad. Consultants we contacted universally report that few ESOPs require employees to give up anything for ownership.

A common perception is that ESOPs replace pension plans. In fact, an ESOP Association survey indicated that 35 percent of the ESOP companies also have pension plans. Unfortunately, there is no way to determine how this compares with the population of similar non-ESOP companies. To the best of our knowledge, comparable data simply do not exist (there are only data based on the number of employees receiving pensions, not the

number of companies offering them). On the other hand, 35 percent of the ESOP Association companies did replace their profit sharing plans with an ESOP.

If these very sketchy data indicate that employees do not give up much, if anything, for an ESOP, then how do companies afford the extra benefits? Apparently, the answer is that ESOP companies are more productive and grow more quickly than comparable non-employee ownership firms. A number of studies have shown this relationship, although none so far have been able to determine whether employee ownership causes greater financial success or greater financial success makes a company more likely to share ownership. Either way, these companies do seem to do better, which makes it easier for them to afford the extra benefit.

Conclusion

Do ESOPs provide a significant source of additional wealth for employees? That was and is the central question that must be asked in evaluating their performance. The data reported here suggest the answer is "yes." Employees who stay with the typical ESOP for more than a few years will begin to accumulate capital accounts that will grow to five or even six figures during their tenure. Just from their ESOP, millions of employees can thus expect to accumulate financial assets greater than the net financial assets of most American families. ESOP beneficiaries do not appear to give up wages to receive these benefits, although the picture is not quite as clear with respect to whether they forego other benefits. Even if they do, however, the comparative data presented here suggest that, overall, ESOPs perform better than other benefit plans and are more likely to provide at least some benefits to the typically mobile American worker.

Given this performance, it does then appear that ESOPs have been successful in accomplishing the central purpose for which they were established — to create a more equitable distribution of wealth. □

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Small cap

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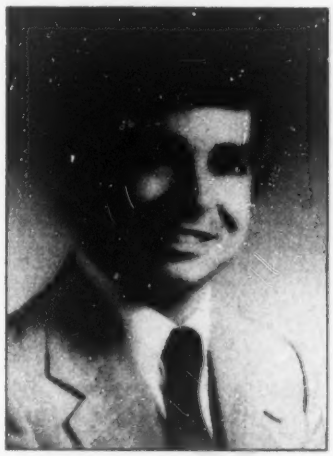
priate investment manager for your retirement program's small cap portfolio, however, there are some plan-related issues that must be considered.

First it is essential to review your plan's individual investment and risk control objectives to make sure they are realistic and compatible with your plan's needs. You must consider, for example, what rate of return is needed for plan assets to at least equal vested liabilities, and what rate of return will maintain or reduce your annual contribution rate. In addition, how much risk are you willing to assume to achieve this rate of return?

Once these issues are decided, you must consider what portion of plan assets should be allocated to the small cap market, as well as other market sectors.

Most investment managers are willing to assist plan sponsors in the asset allocation process as well as in every phase of the plan's operation — from reviewing your plan's current status to setting investment objectives to managing your fund's assets. When selecting a small cap investment manager, you should not base your decision solely on investment performance. Style, philosophy and personnel also need to be considered for a compatible, long-term working relationship.

Finally, after a suitable manager has been chosen, performance must be monitored regularly on both an absolute and relative basis to ensure that the rate of return needed to meet your plan's benefit security and cost requirements is being met within an acceptable level of risk. □



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